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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/073,825	05/07/1998	SUSUMU TSUJIMOTO	0004634P	1276

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600 NEW HAMPSHIRE AVENUE, N.W.
WASHINGTON, DC 20037

EXAMINER

PETERSON, KENNETH E

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 06/15/2004

38

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/073,825

Applicant(s)

TSUJIMOTO, SUSUMU

Examiner

Kenneth E Peterson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. Claims 18-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse in Paper No. 36.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by Armstrong et al. '280, who shows a saw in figure 3 having all of the recited limitations including four alternately offset teeth (e.g. L1,R1,L2,R2), a collinear bend line, inline cutting tips, different pitches, and gullets lower than the bend line. As seen in figure 3, the teeth all have the same running length at the bend line.

4. Claim 15 is rejected under 35 U.S.C. 102(b) as being anticipated by Clark '967, who shows a saw in figure 3 having all of the recited limitations including four alternately offset teeth (e.g. 14,15,16,17), a collinear bend line (see figure 4), inline cutting tips (see figure 4), different pitches, and gullets lower than the bend line (see figure 4). Note that Applicant's claims do not recite that *all* gullet bottoms must be lower than the bending line. As seen in figure 2, the teeth all have the same running length at the bend line.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark '967 or Armstrong et al. '280.

Looking at Armstrong's figure 3 or Clark's figure 2, it appears that the pitch varies from tooth to tooth. However, neither Armstrong nor Clark explicitly say as much. If it were interpreted that the pitch does not vary from tooth to tooth, then Examiner takes Official Notice that this is old and well known. Examples of such are Senegas, Kullmann et al. and Dryden. It would have been obvious to one of ordinary skill in the art to have made the Armstrong's or Clark's pitch vary from tooth to tooth, as is well known and taught by Senegas, Kullmann et al. and Dryden, in order to best dampen vibration of the blade and/or avoid the clogging of the gullet by particles of a particular size.

If it is argued that the bending lines of each tooth are not *exactly* the same length, or that the bending lines of each tooth are not *exactly* collinear, then Examiner notes that there is no criticality in the length and position of the bending lines being *exactly* the same for each tooth, nor is there detriment if the bending lines are of *slightly* different length or *slightly* non-collinear. The use of bending lines of the *exact* same

length and *exactly* collinear, compared to bending lines of *slightly* varying lengths and *slightly* non-collinear solves no stated problem and would have been an obvious matter of design choice within the skill of the art. In re Kuhle, 188 USPQ 7.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over either of Clark '967 or Armstrong et al. '280, as set forth in either the 102 or 103 rejection above.

The gullet bottoms of Armstrong and Clark are rounded. However, Examiner takes Official Notice that it is well known for gullet bottoms to be flat with curves rising up to meet the teeth on either side. Examples of such are Kolesh and Hayden, Sr.'571. The radius of curvature of each curve appears to be similar if not the same. It would have been obvious to one of ordinary skill in the art to have modified either Clark or Armstrong by making the gullet bottom flat, since both round and flat gullet bottoms perform the same function of separating the teeth.

8. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that Armstrong's teeth do not show four different pitches. It appears from the drawings that Armstrong does show four different pitches, but if this is insufficient, then attention is drawn to the Senegas, Kullmann et al. and Dryden references, which teach as much.

Applicant argues that Armstrong's bending line length is different for teeth R1 and L2 in figure 3. Examiner does not see this difference. A careful measurement

shows them both to be 4mm. There is no suggestion to a maker of this device that the bending lines lengths should be different from one another.

Applicant argues that Clark's bending line length is different for different teeth. Examiner does not see this difference. A careful measurement of figure 2 shows them all to be the same. The collinear bending line is slightly above the two most shallow gullets (2nd and 9th in figure 2) and measurements were taken therefrom showing that the bending line was always 12mm. There is no suggestion to a maker of this device that the bending lines lengths should be different from one another.

Applicant argues that Clark's bending line length must be different for each tooth since the rake angle is different for each tooth. This is not found persuasive since the rake angle only occurs *above* the bend line, and not *across* the bend line.

Applicant argues that there is criticality to the bending lines all being of the same length, but Applicant has not shown this to be critical when compared to bending lines that are very close to being the same length, which the references surely show. Examiner does not see any way that variations of a few percent in bending line length or collinearity could be considered critical.

Applicant argues against the Kolesh reference. In addition to Kolesh, Examiner now provides the Hayden, Sr. reference showing a flat gullet bottom. There are numerous other references teaching flat gullet bottoms.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 703-308-

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2186. The examiner can normally be reached on Monday thru Thursday between 7am and 4pm.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

kp
June 9, 2004



KENNETH E. PETERSON
PRIMARY EXAMINER